

ABSTRACT OF THE DISCLOSURE

A multi-layer antistatic/antireflective coating having high electrical conductivity (10^3 ohms) and low reflectivity (0.7%) is applied to the outer surface of a video display screen by sputtering. The multi-layer coating includes an inner antistatic layer deposited directly on the video display screen and comprised of ITO, TiO_2 , etc., having a light refractive index in the range of 1.8-2.2 and a thickness in the range of 18-35 nm. The outer antireflective layer is comprised of SiO_2 , MgO , etc., having a light refractive index in the range of 1.3-1.47 and a thickness in the range of 110-140 nm. The multi-layer coating is applied using a sputtering apparatus having a dual vacuum chamber, a diffusion pump connected to one of the chambers, and plural vacuum pumps connected to the diffusion pump and to the dual vacuum chamber with various gauges and valves for monitoring and controlling the sputtering operation.